STATEMENT OF
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Before the Senate Committee on Commerce, Science, and Transportation
SUBCOMMITTEE ON AVIATION
February 26, 1998

Mr. Chairman and Members of the Subcommittee, thank you for the invitation to testify before the Subcommittee on Aviation on the topic of National Airspace System (NAS) Modernization. My name is Margaret Jenny. I am the Director of Airline Business and Operations Analysis for US Airways. I am also the Co-chairperson of the RTCA Free Flight Select Committee. It is mainly in my capacity as the co-leader of that government/industry committee whose mission is to ensure the timely implementation of the steps toward Free Flight that I address you today. It is important, however, that you understand the importance that US Airways places on this initiative as indicated by the amount of time I am encouraged to spend on this endeavor.

As RTCA Free Flight Select Committee Co-Chairs, Jeff Griffith, FAA Program Director of Air Traffic Operations, and I represent a selected group of aviation representatives who have been working to define and ensure implementation of a steady evolution to an increasingly safe and efficient Air Traffic Management System. More importantly, we have been working to forge and maintain a government/industry consensus on the way forward. We were asked just 4 weeks ago by Administrator Garvey to review the modernization plan proposed by her NAS Modernization Task Force and to provide comments to the FAA by the end of February. We committed to providing such a report to Administrator Garvey by the end of February, and to solicit and incorporate input from as many stakeholders as possible during this relatively short review period. I have provided the Administrator with interim progress reports, and will deliver the Select Committee?s final report within a few days. Our work is nearing completion, but it is important for the Subcommittee members to know that

RTCA has not yet reached an institutional position on the new NAS Modernization Plan. My testimony today, therefore, represents my perspective of the process of achieving consensus, a goal to which I am deeply committed.

The Select Committee applauds the Administrator?s actions aimed at creating consensus, and her willingness to make a commitment to her customers and to the aviation community to implement near-term enhancements to NAS operational capabilities by dates certain. Further, we are encouraged by the FAA?s intention to highlight for Congress and the aviation community those areas where the risks in the NAS Modernization Program exist, and to commit to working in partnership with the community to mitigate those risks and, thereby, expedite implementation.

Last year, the RTCA Free Flight Select Committee, through its overseeing body, the Free Flight Steering Committee, recommended that the FAA expedite the deployment of five Air Traffic Management Decision Support Systems that would increase capacity and efficiency of the NAS by providing enhanced operational capabilities. These five elements are: the User-Request Evaluation Tool (URET) Conflict Probe, Traffic Management Advisor, Passive Final Approach Spacing Tool, Collaborative Decision Making, and Controller-Pilot Datalink Communications Build 1. We are pleased to see these same five form the basis of the Administrator?s NAS Modernization Task Force recommendations. When the Free Flight Select Committee was briefed on the preliminary output of the FAA NAS Modernization Task Force, our immediate reaction was to ask how we could help. As a result, we have been asked by the Administrator to review the new modernization plan and provide whatever industry consensus response we can by the end of this month.

I appreciate the Subcommittee?s invitation to comment on this bold initiative, and to offer my assessment of the opportunities and challenges it presents to the FAA and the aviation community.

The entire aviation community has recognized the need for real innovations

to modernize the nation?s Air Traffic Management System to meet growing demand. These innovations are technological, procedural, and, perhaps most importantly, cultural. Through participation in the RTCA Task Force 3 and subsequent RTCA Free Flight Select Committee, the FAA and industry have defined a path to Free Flight that provides incremental benefits and cost savings to the FAA and the users. In simple terms, Free Flight is a system in which safety decisions are made by the FAA and economic decisions are made by the users. The sense of urgency and enthusiasm for NAS Modernization stems from the two facts: (1) current inefficiencies in the NAS are costing the airlines over $3 billion annually, and (2) if we do nothing to modernize, growth in demand will make it virtually impossible, beginning in 2005, for airlines to run efficient schedules, due to delay and other inefficiencies.

In response to this impending crisis, the FAA has developed, with industry input, a modernization plan called Architecture 3.0. It is intended to provide the roadmap toward NAS modernization. Inputs to this plan included the Government/Industry Air Traffic Management System Operational Concept, the Air Traffic Services Service Plan, and the Government/Industry Free Flight Action Plan. Budget realities and associated institutional and technical risks have made it clear that Architecture 3.0 is not achievable as currently defined. As a result, the Administrator convened the NAS Modernization Task Force to answer the question: ?Can we modernize the NAS by 2005, and if so, what do we need to do to accomplish that goal?? The starting point for this Task Force was Architecture 3.0. The result is the revised NAS Modernization Plan upon which I will offer my comment to the Subcommittee today.

Many people have asked how this new plan relates to the FAA?s Architecture 3.0, which is the result of many long months of work, and extensive industry review. Quite simply, the Administrator?s NAS Modernization Plan is the response to budget constraints and other risks that present barriers to successful implementation of the Architecture 3.0. The NAS Modernization Plan expedites those high benefits, low risk elements, identifies and calls for a risk mitigation plan for elements that present increased challenge, and moves forward as planned with the rest.

The NAS Modernization Task Force has published a matrix showing the elements of risk and areas of opportunity in various components of NAS Modernization. The challenges are operational, technical, schedule, cost and institutional or cultural. This matrix more literally represents the opportunities and challenges facing the FAA and aviation community. By identifying risks early, the goal is that necessary steps can be taken to expedite the deployment of new operational capabilities in the NAS. A plan that is based on this matrix will expedite limited deployment of proven core capabilities while simultaneously addressing and mitigating risk and moving forward with more complex elements of the evolving NAS. With determined leadership, the implementation of the plan will enable the delivery of benefits to users before the entire infrastructure is upgraded. As the users have demonstrated in previous studies (by American Airlines, the MITRE Corporation?s Center for Aviation System Development and others), if we do nothing to improve the NAS, we will be unable, because of increased inefficiencies in the system, to run scheduled operations by the year 2005. The approach recommended by the NAS Modernization Task Force, if implemented successfully, will deploy near term enhancements to the NAS, and thus will buy us the time we need to analyze and mitigate risk in the CNS programs and implement new capabilities using advanced CNS technology.

More than any other single criterion, success of the NAS Modernization plan requires a substantial and fundamental change to FAA business practices. We all recognize that this will not be easy. The lack of previous successful introduction of new operational capabilities indicates the need for a new way of doing business within the FAA. The FAA must embrace a new paradigm for fielding evolutionary upgrades to the NAS; one that addresses technology, procedures, deployment, operations and maintenance, training, logistics, certification and all other necessary and essential elements of each new operational capability. This new plan represents a bold new approach to fielding timely incremental enhancements to the NAS. Such fundamental changes require determined leadership. To implement Free Flight Phase 1 successfully, the FAA must identify a single accountable leader who is responsible for the delivery of agreed-to operational capabilities at specified sites by 2002. To deliver an operational capability, that leader must resolve all related operational, financial and technical issues. All phases of the program must be accomplished in

collaboration with the users.

Turning our attention to the details of the NAS Modernization Plan, let me first address Free Flight Phase 1. This initiative will provide needed relief from system inefficiencies. The most important thing to note about this initiative, though, is not what capabilities will be delivered, but how this will be accomplished. The plan will be finalized in collaboration with the users, it will be managed a new way, and, most importantly, it will be a contract between the FAA and the users to deploy specific, albeit limited, capabilities to specific sites by 2002, with appropriate natural deployment by 2005. Success will go a long way to restoring lost credibility to the FAA. The Free Flight Select Committee identified specific criteria to decide among capabilities and sites. We must not forget that the 5 core capabilities are the very ones the Free Flight Steering Committee identified as highest priority in a letter to the FAA last year. Those priorities have not changed. The challenge before us is selecting an appropriate set of sites. Sites must be selected based on the following criteria: (1) will it provide measurable benefit? (2) is it achievable by 2002? (3) is it equitable among the users? and (4) does it contribute to the eventual full-scale (or national) implementation of Free Flight? There is still work to be done to arrive at an agreed to set of capabilities and sites. We must resist the temptation to expand the scope of Free Flight Phase 1 beyond achievable goals. Deployment, adaptation, human factors and other challenges are real and must not be ignored in a quest to add something for everyone into Free Flight Phase 1. We must not let the perfect ultimate solution be the enemy of a good interim solution. We will surely learn more from an evolutionary, build-a-little-test-a-little approach to modernization than from failed traditional methods.

Finally, let me address the CNS component of the NAS Modernization Plan. It is hard to argue with the assertion that many challenges must be overcome before we can successfully implement new operational capabilities based on GPS/WAAS, sophisticated controller-pilot datalink communications, or automatic dependent surveillance. Relating to the NAS Modernization Task Force Risk Matrix, I have heard it said that painting risks in these programs red will lead to their demise. I strongly disagree with that

claim, on the contrary, I believe that without the attention the red will draw to these programs, they are doomed to fail. Mr. Chairman and Members of the Subcommittee, can an accurate assessment of the challenges facing a program be more detrimental than overly optimistic claims? Many details remained unanswered, but one thing is certain, the challenges are real and can only be overcome by focusing attention on them and working in partnership to overcome them. Implementing Free Flight Phase 1 buys us the time we will need to mitigate the risk in the CNS elements and implement new capabilities based on these sophisticated technologies.

As the Free Flight Select Committee has recommended to the FAA, Flight 2000 should be a risk mitigation program focusing on CNS. The NAS Modernization Plan appropriately includes a refocus of Flight 2000 in this direction.

This new approach to NAS Modernization allocates the budget where it is most needed, and reduces expenditures on high risk technology programs until risks are removed. Preliminary analysis indicates that the current Office of Management and Budget passback, including the additional money for Flight 2000, provides enough money to move forward with this new plan. However, it is possible that further cost analysis will identify the need for either more money or reduced scope of some elements of the plan such as Free Flight Phase 1. The NAS Modernization Plan provides a more sound basis for investment decisions than Architecture 3.0 alone, since it ties investment decisions to the deployment of operational capabilities and not merely to the implementation of technologies. Recognizing the need for further analysis, I see no reason not to embrace not only the NAS Modernization Plan but also the fundamental and substantial cultural and institutional changes that it implies.